

REMARKS

The Applicants filed remarks to the Final Office Action dated March 13, 2003 on June 12, 2003. The present Action was issued on June 25, 2003 in response to those remarks. In response to the Action, the Applicants request the cancellation of Claims 50-64 to place this case in better form for consideration on Appeal and concurrently file a Notice of Appeal and the following remarks to the Action.

35 U.S.C. § 103(a) Rejections

Even if a motivation does exist "to include carbon dioxide in the hydrogenation process of Bitler et al." as stated in the Action (Applicants do not concede this assertion), the combination of Bitler et al. and Baiker fails to teach or suggest all of the claim recitations. Neither reference teaches or suggests a catalyst bound to a polymer wherein the polymer is soluble in carbon dioxide as recited in the Claims. At most, Bitler et al. describes a polymeric material that may be melted, stating:

It is important that the polymeric ingredient should melt over a relatively small temperature range, so that the extent to which the matrix is contacted by the active chemical ingredient changes sharply when the composition is heated or cooled through the temperature range T_o to T_p .
See, Bitler et al. at col. 9, lines 33-37.

Nowhere does Bitler et al. describe a carbon dioxide soluble polymeric material. Similarly, Baiker fails to teach or suggest a polymer that is soluble in carbon dioxide. Without a teaching or suggestion of a polymer soluble in carbon dioxide by either reference, a *prima facie* case of obviousness is not supported. *See, In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Claims 1-9, 11-13, 18-20 and 49 are allowable over the outstanding 35 U.S.C. § 103(a) rejections.

35 U.S.C. § 102(b) Rejections

Tacke et al. fails to teach or suggest polymers that are soluble in carbon dioxide as recited in the Claims. The failure of Tacke et al. to recite such a feature precludes an anticipation

rejection under 35 U.S.C. §102(b) because "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." M.P.E.P. § 2131 (quoting *Verdegaal Bros. v. Union Oil Co.*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987)). Tacke et al. does not expressly or inherently describe carbon dioxide soluble polymers as recited in the Claims.

Furthermore, Tacke et al. explicitly states that:

Various materials are suitable as catalyst supports. The materials must however satisfy the above-mentioned requirements as regards their physical properties and be resistant to the reaction media. See, *Tacke et al.* at col. 4, lines 38-41 (emphasis added).

The physical properties that must be met include the requirement that the supports "have a high specific surface" and "particularly important for the method according to the invention is also the pore structure of the supports." See, *Id.* at col. 3, lines 34-38. If the supports are indeed soluble they would not have a high specific surface or pore structure. Also, the Tacke et al. catalysts "must be deposited finely distributed on the support, in order to provide as great a metal surface as possible for the catalytic process." See, *Id.* at col. 3, lines 60-63. The "geometric surface relative to the total volume of the bed" of the catalyst covered supports "benefits the catalytic activity of the catalyst bed." See, *Id.* at col. 4, lines 28-29. However, soluble supports would not hold the desired geometric surface.

Tacke et al. also indicates that:

The above-mentioned requirements are however met in an optimal manner by organosiloxane amine copolycondensates or by polymeric, secondary and/or tertiary organosiloxane amine compounds or by organosiloxane polycondensates. See, *Id.* at col. 4, lines 47-52 (emphasis added).

Tacke et al. does not indicate that such supports are soluble in carbon dioxide as recited in the Claims. The lack of solubility of the Tacke et al. polymers in carbon dioxide precludes the anticipation rejection. See, *Verdegaal Bros. v. Union Oil Co.*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987).

CONCLUSION

Applicants respectfully request entry of the proposed Amendments and withdrawal of the outstanding rejections and the issuance of a Notice of Allowance forthwith. The Examiner is encouraged to direct any questions regarding the foregoing to the undersigned, who may be reached at (919) 854-1400.

Respectfully submitted,



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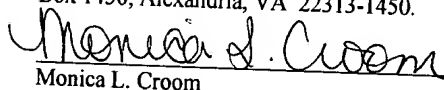
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